

WHAT IS CLAIMED IS:

- 1 1. A method for data synchronization, comprising:
2 determining a first identifier for a portion of data at a first source;
3 determining a second identifier for a portion of corresponding data at a second
4 source;
5 comparing the first and second identifiers; and
6 when the first and second identifiers do not match, replacing the portion of
7 corresponding data at the second source with the portion of data at the first source.

- 1 2. The method of claim 1, further comprising:
2 when the first and second identifiers do match, determining that the portion of
3 data at the first source and the portion of corresponding data at the second source are
4 identical.

- 1 3. The method of claim 1, wherein the first and second identifiers comprise
2 hash keys.

- 1 4. The method of claim 3, further comprising:
2 generating the hash keys using a single hash key function.

- 1 5. The method of claim 3, further comprising:
2 generating the hash keys using multiple hash key functions.

- 1 6. The method of claim 1, further comprising:
2 generating the first identifier by performing a first function on the portion of data
3 at the first source; and

4 generating the second identifier by performing the first function on the portion of
5 corresponding data at the second source.

1 7. The method of claim 1, wherein determining the first identifier further
2 comprises:
3 generating a first value by performing a first function on the portion of data at the
4 first source;
5 generating a second value by performing a second function on the portion of data
6 at the first source; and
7 generating the first identifier by combining the first value and the second value.

1 8. The method of claim 7, wherein determining the second identifier further
2 comprises:
3 generating a third value by performing the first function on the portion of
4 corresponding data at the second source;
5 generating a fourth value by performing the second function on the portion of
6 corresponding data at the second source; and
7 generating the second identifier by combining the third value and the fourth
8 value.

1 9. The method of claim 1, wherein determining the first identifier further
2 comprises:
3 generating a first value by performing a first function on the portion of data at the
4 first source; and
5 generating the first identifier by performing a second function on the first value.

1 10. The method of claim 9, wherein determining the second identifier further
2 comprises:
3 generating a second value by performing the first function on the portion of
4 corresponding data at the second source; and
5 generating the second identifier by performing the second function on the second
6 value.

1 11. The method of claim 1, wherein the first identifier for the portion of data
2 at the first source is determined when the portion of data at the first source is updated and
3 the second identifier for the portion of corresponding data at the second source is
4 determined when the portion of corresponding data at the second source is updated.

1 12. The method of claim 1, wherein the first identifier and the second
2 identifier are determined when a determination is made that it is time to synchronize data
3 at the first source and the second source.

1 13. The method of claim 1, wherein the first identifier and the second
2 identifier are determined periodically.

1 14. An article of manufacture for data synchronization, wherein the article of
2 manufacture is capable of causing operations to be performed, the operations comprising:
3 determining a first identifier for a portion of data at a first source;
4 determining a second identifier for a portion of corresponding data at a second
5 source;
6 comparing the first and second identifiers; and
7 when the first and second identifiers do not match, replacing the portion of
8 corresponding data at the second source with the portion of data at the first source.

1 15. The article of manufacture of claim 14, wherein the operations further
2 comprise:
3 when the first and second identifiers do match, determining that the portion of
4 data at the first source and the portion of corresponding data at the second source are
5 identical.

1 16. The article of manufacture of claim 14, wherein the first and second
2 identifiers comprise hash keys.

1 17. The article of manufacture of claim 16, wherein the operations further
2 comprise:
3 generating the hash keys using a single hash key function.

1 18. The article of manufacture of claim 16, wherein the operations further
2 comprise:
3 generating the hash keys using multiple hash key functions.

1 19. The article of manufacture of claim 14, wherein the operations further
2 comprise:
3 generating the first identifier by performing a first function on the portion of data
4 at the first source; and
5 generating the second identifier by performing the first function on the portion of
6 corresponding data at the second source.

1 20. The article of manufacture of claim 14, wherein the operation for
2 determining the first identifier further comprises:
3 generating a first value by performing a first function on the portion of data at the
4 first source;

5 generating a second value by performing a second function on the portion of data
6 at the first source; and
7 generating the first identifier by combining the first value and the second value.

1 21. The article of manufacture of claim 20, wherein the operation for
2 determining the second identifier further comprises:
3 generating a third value by performing the first function on the portion of
4 corresponding data at the second source;
5 generating a fourth value by performing the second function on the portion of
6 corresponding data at the second source; and
7 generating the second identifier by combining the third value and the fourth
8 value.

1 22. The article of manufacture of claim 14, wherein the operation for
2 determining the first identifier further comprises:
3 generating a first value by performing a first function on the portion of data at the
4 first source; and
5 generating the first identifier by performing a second function on the first value.

1 23. The article of manufacture of claim 22, wherein the operation for
2 determining the second identifier further comprises:
3 generating a second value by performing the first function on the portion of
4 corresponding data at the second source; and
5 generating the second identifier by performing the second function on the second
6 value.

1 24. The article of manufacture of claim 14, wherein the first identifier for the
2 portion of data at the first source is determined when the portion of data at the first source
3 is updated and the second identifier for the portion of corresponding data at the second
4 source is determined when the portion of corresponding data at the second source is
5 updated.

1 25. The article of manufacture of claim 14, wherein the first identifier and the
2 second identifier are determined when a determination is made that it is time to
3 synchronize data at the first source and the second source.

1 26. The article of manufacture of claim 14, wherein the first identifier and the
2 second identifier are determined periodically.

1 27. A system for data synchronization, comprising:
2 means for determining a first identifier for a portion of data at a first source;
3 means for determining a second identifier for a portion of corresponding data at a
4 second source;
5 means for comparing the first and second identifiers; and
6 means for, when the first and second identifiers do not match, replacing the
7 portion of corresponding data at the second source with the portion of data at the first
8 source.

1 28. The system of claim 27, further comprising:
2 means for, when the first and second identifiers do match, determining that the
3 portion of data at the first source and the portion of corresponding data at the second
4 source match.

1 29. The system of claim 27, wherein the first and second identifiers comprise
2 hash keys.

1 30. The system of claim 29, further comprising:
2 means for generating the hash keys using a single hash key function.

1 31. The system of claim 29, further comprising:
2 means for generating the hash keys using multiple hash key functions.

1 32. The system of claim 27, further comprising:
2 means for generating the first identifier by performing a first function on the
3 portion of data at the first source; and
4 means for generating the second identifier by performing the first function on the
5 portion of corresponding data at the second source.

1 33. The system of claim 27, wherein determining the first identifier further
2 comprises:
3 means for generating a first value by performing a first function on the portion of
4 data at the first source;
5 means for generating a second value by performing a second function on the
6 portion of data at the first source; and
7 means for generating the first identifier by combining the first value and the
8 second value.

1 34. The system of claim 33, wherein determining the second identifier further
2 comprises:
3 means for generating a third value by performing the first function on the portion
4 of corresponding data at the second source;

5 means for generating a fourth value by performing the second function on the
6 portion of corresponding data at the second source; and
7 means for generating the second identifier by combining the third value and the
8 fourth value.

1 35. The system of claim 27, wherein determining the first identifier further
2 comprises:

3 means for generating a first value by performing a first function on the portion of
4 data at the first source; and

5 means for generating the first identifier by performing a second function on the
6 first value.

1 36. The system of claim 35, wherein determining the second identifier further
2 comprises:

3 means for generating a second value by performing the first function on the
4 portion of corresponding data at the second source; and

5 means for generating the second identifier by performing the second function on
6 the second value.

1 37. The system of claim 27, wherein the first identifier for the portion of data
2 at the first source is determined when the portion of data at the first source is updated and
3 the second identifier for the portion of corresponding data at the second source is
4 determined when the portion of corresponding data at the second source is updated.

1 38. The system of claim 27, wherein the first identifier and the second
2 identifier are determined when a determination is made that it is time to synchronize data
3 at the first source and the second source.

1 39. The system of claim 27, wherein the first identifier and the second
2 identifier are determined periodically.